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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,505	02/13/2001	Tong-Xian Chen	MS1-724US	4615

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EXAMINER

WU, JINGGE

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,505

Applicant(s)

CHEN ET AL.

Examiner

Jingge Wu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 15-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 . 6) ☐ Other: _____

DETAILED ACTION

Applicant's election without traverse of species I in paper No. 5 is acknowledged. Accordingly, Claims 15-54 are now presented for prosecution. Claims 1-15 are withdrawn from consideration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 15-21, 24-31, 35-40, 43-46, 49, 50-54 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6292574 to Schildkraut et al., (hereinafter Schildkraut).

As to claim 15, Schildkraut discloses a system comprising:

a region detecting module to detect regions of an image that include pixels of a particular one or more colors (fig. 2, 4-6, col. 4 lines 1-41);

an eye confirmation module to receive the detected regions from the region detection module and identify, for each of the detected regions, whether the detected region is part of an eye (fig. 2 S20, and fig. 11, col. 7 lines 5+).

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As to claims 16, Schildkraut further discloses different shades of the same color (skin color) (col. 3 lines 13-67).

As to claims 17-21, Schildkraut further discloses red shade (skin color); digital film image processed by a computer (abstract, col. 2 line 35-39); part of human eye (fig. 10-11).

As to claim 24, Schildkraut further discloses a skin color module to detect of skin color in the image and indicate the detected areas to the region detection module (fig. 2 col. 3 lines 1-65); and the region detection module is to search within the detected areas to detect regions that includes the pixels of skin color (col. 4 line 1+).

As to claim 25, the eye confirmation module comprises a classifier to classify each of detected regions as either part of an eye or not part of an eye (fig. 2 S20, and fig. 11, col. 7 lines 5+).

As to claim 26, Schildkraut further discloses a multi-scale classifier to apply a window to the image and compare pixels within the window to an eye template (fig. 11), to alter the scale of the image, and then to repeat the application of the window to the scale-altered image and comparison to the eye template (fig. 2 S20-26, fig. 11 and 13, col. 7 line 5 –col. 9).

As to claim 27, Schildkraut further discloses a pixel identifier that is trained to colors associated with red eye, and identify pixels within the regions having colors that are close to the red eye color (fig. 11, col. 8 line –col. 10 line 60, col. 11 lines 34-61).

As to claims 28 and 29, Schildkraut further discloses a pixel grouper coupled to receive the identified pixels from the pixel identifier and group together adjacent pixels based on the distance of one another (fig. 2 and 11, col. 12 line 1-67).

As to claim 30, Schildkraut further discloses a filter (either skin region or not skin region pixel) based on a set of rules and send them as detected regions (fig. 2-3, col. 3-col. 6, note that the rules are implemented in the procedures such as S4j or S10 etc.)

As to claim 31, Schildkraut further discloses threshold for skin regions (fig. 3, S4j).

As to claims 35-40, 43-46, 49, 50-54, the claims are the corresponding method, camera, and system claims to claims 15-21, 24-31. The discussions are addressed with regard to claims 15-21, 24-31.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-23, 32, 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schildkraut in view of US 6285410 to Marni.

As to claim 22-23, Schildkraut does not expressly mention the implementation of red-eye correction into the camera and printer.

Marni, in an analogous environment, teach a photo kiosk which implements the red-eye correction in the camera and printer (fig. 1)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the red eye correction in the camera and/or printer as taught by Marni in the system of SchildKraut in order to correct the artifacts caused by the red-eye (Marni, col. 1).

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As to claim 32, Schildkraut does not expressly mention the rule of single pixel is not detected region.

Examiner takes Official Notice that the feature is notoriously well known in the art, especially in noise removing of an image.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the rule in the module in order to remove the noise such as a single pixel with certain color.

As to claims 47-48, Schildkraut does not expressly mention checking whether flash was used and using red-eye correction only if the flash is used and set a flag used tag.

Examiner takes Official Notice that the feature is notoriously well known in the art, especially in automatically red-eye correction.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the detection flash in the system in order to efficiently trigger the red eye correction procedure.

Claims 33-34, 41-42, are rejected under 35 U.S.C. 103(a) as being unpatentable over Schildkraut in view of US 6204858 to Gupta.

As to claims 33-34, 41-42, Schildkraut does not expressly mention the rule related to the shape of the red-eye.

Gupta, in an analogous environment, teach a rule which decides whether the red-eye area is circular region (fig. 4-5, col. 4 lines 4-31)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate scheme of Gupta into the system of Schildkraut in order to correctly identify red-eye region (Gupta, col. 1).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6016354 to Lin et al., US 5990973 to Sakamoto, US 6557751 to Yamamoto, US 6665434 to Yamaguchi, US 5432863 to Benati et al., US 6134339 to Luo, US 6009209 to Acker et al., and US 6151403 to Luo disclose methods and systems for red eye correction.

Contact Information

Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner

